"IS REMEDIAL EDUCATION A WISE INVESTMENT FOR AT-RISK STUDENTS?"

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Research Framework

- The primary objective of this research is centered on assessing the effectiveness of DSP as a means to help to prepare students to succeed at the college level. Additionally, it examines the utility of limiting the costs of DSP education.

- In many ways, DSP stands at the apex of a series of challenges and opportunities that confront state policymakers, campus faculty, and administrators

Inherent Controversy

As Crowe (1998) notes, few issues in American higher education have attracted as much attention or controversy in recent years as college level remediation. As a result of the debate over costs, duplication, and instructional adequacy, a variety of states have begun to closely examine policies related to developmental studies programs (DSP).

Assumptions/Concerns

- Educational context
  - Should higher education provide R/D?
  - Are R/D courses an effective policy intervention?
  - Should K-12 absorb instructional costs?
- Policy Nexus
  - Policy cannot be created in a vacuum
  - Keller 1985; Gordon 1992; Nettles 1995

What is Remedial-Developmental Education?

- *Remedial* - Student lacks the basic ability to write complete sentences, basic reading comprehension, and basic computational arithmetic (i.e., addition, subtraction, multiplication, division).

- *Developmental* - Student has basic remedial skills, but lacks the ability to write coherent paragraphs and do algebraic computations.

Relevance to Practice and Research

- Traditional element of American higher education (Ignash 1997; Payne and Lyman 1998).
- Myth of the golden age of American higher education.
- Discussions of remedial education are often one of the taboo subjects of higher education because the acceptance of low achieving students runs counter to the goal of academic prestige (Bogue 1996).
- The under-prepared student represents a pariah in American higher education (Astin 1998).

K-12 Related Policy Issues

- Input and pipeline issues (Litten 1982)
- It has become increasingly difficult for K-12 to justify to elected officials and policymakers why such large numbers of their graduates are not prepared for college.
- The reasons for this lack of preparation have been widely discussed (Astin 1975; Astin 1993; Bowen and Bok 1998; Fields 1988; Fordham 1994; Hughes 1987; Tracey and Sedlacek 1985).

Comparative Studies

Although there have been few national studies of remedial activity, several states have conducted in-depth analysis of the impact of this instructional medium. However, it should be noted that the results are diminished by the lack of agreement on the nature of remediation. There is little consensus and understanding about what remedial education is, whom it serves, who should provide it, and how much it costs. Consequently, this lack of fundamental information and imprecision of language often renders public policy discussions ill informed at best (Merisotis and Phipps 2000).

NCES Analysis of DSP

- Studies by NCES show that 78% of higher education institutions that enrolled first-year students in fall 1995 offered at least one remedial reading, writing, or mathematics course.
- All public two-year institutions and almost all (94%) institutions with high minority enrollments offered remedial courses.
- 29% of first-time first-year students enrolled in at least one remedial reading, writing, or mathematics course in fall 1995.
- First-year students were more likely to enroll in a remedial mathematics course than in a remedial reading or writing course, irrespective of institution attended (NCES 1995).

National Overview

Research about the effectiveness of remedial education programs has typically been sporadic, under-funded, and inconclusive. For instance, a study of 116 two- and four-year colleges and universities revealed that only a small percentage conducted any systematic evaluation of their remedial education programs (Weissman, Bulakowski, & Jumisco, 1997). The Southern Regional Education Board has observed that, because few states have exit standards for remedial courses, it is unclear whether many states know whether their programs work (Crowe 1998).

Does R/D Impact Persistence?

Adelman (1998) found an inverse relationship between the extent of students' need for remedial courses and their eventual completion of a degree. Of the 1982 high school graduates who had earned more than a semester of college credit by age 30, 60% of those who took no remedial courses, and 55% of those who took only one remedial course, had either earned a bachelor's or associate's degree. In contrast, only 35% of the students who participated in five or more remedial courses attained either a bachelor's or associate's degree.

Research Questions

- What factors impact retention?
- What is the impact of R&D exposure on persistence?
- Do variations exist across institutional classifications?
- Three base frames of reference
  - The scope and demographics of students taking remedial and developmental coursework
  - Costs associated with this education
  - Outcomes of remedial and developmental students.

Methodology

- The study examines eight cohorts of students, 1987 through 1994, totaling approximately 174,841 first-time full-time freshmen at Tennessee four-year universities and two-year community colleges.
- The cohorts are divided into four classifications of students:
  - Only remedial coursework in their first fall semester
  - Only developmental coursework
  - Combination of remedial and developmental coursework
  - No remedial nor developmental coursework.
- The study observes these students at one, two, six, and ten years to observe enrollment and completion outcomes.
- The receipt of any degree from a certificate to bachelors defines successful completion.

Fall 2000 R&D Breakdown - Freshmen

Sector	Total R & D SCH	R&D SCH from 1st Time Fresh.	% from Freshmen
University Total	39,242	23,988	61.1%
Two-Year Total	114,077	55,604	48.7%
Grand Total	**153,319**	**79,592**	**51.9%**

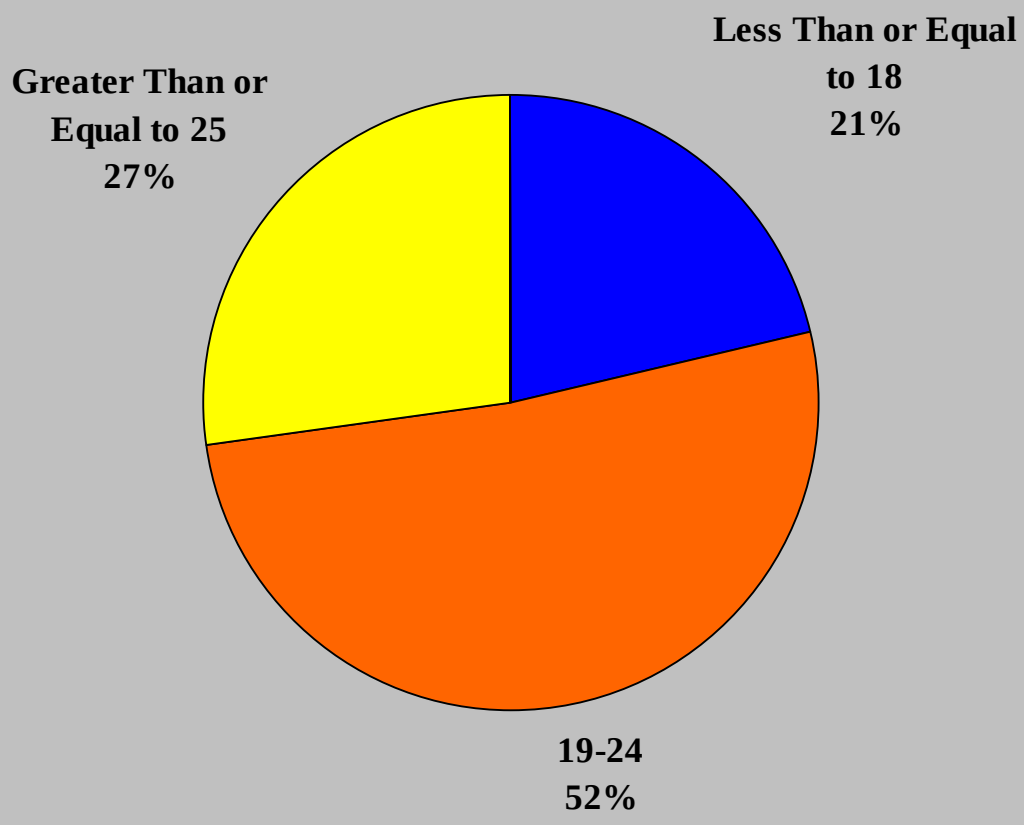
SCH = Student Credit Hours

Fall 2000 R&D Breakdown - All Students

Sector	% of SCH from R&D	% of UG HC from R&D
University Total	3.1%	9.9%
Two-Year Total	16.7%	26.3%
Grand Total	**7.9%**	**17.1%**

SCH = Student Credit Hours
UG HC = Undergraduate Headcount

DSP Credit Production by Age



History of R&D Course Load
First-time Freshmen

Headcount	1992	2000
% Taking 1 Course	19.6%	27.3%
% Taking >1 Course	36.1%	22.1%
% Taking any R&D	55.7%	49.4%

Between 1992 and 2000, entrance requirements and screening tests (Compass Tests) remained constant.

Results - Four Year Sector

Four-Year Sector	Cohort	1-year Retention	2-year Retention	6-year Graduation	10-year Graduation	10-yr. Grad Cohort
No R&D	71,024	82.7%	74.1%	52.4%	61.1%	37,115
R only	1,827	69.8%	56.0%	24.2%	32.1%	770
D only	24,964	73.8%	62.8%	31.9%	43.0%	12,024
R&D mix	7,383	70.6%	56.9%	21.0%	31.9%	4,088
All	105,198	79.5%	69.9%	44.8%	54.5%	53,997
Includes 1987-1994 Cohorts					Includes only 1987-1990 Cohorts	

Results - Two Year Sector

Two-Year Sector	Cohort	1-year Retention	2-year Retention	6-year Graduation	10-year Graduation	10-yr. Grad Cohort
No R&D	15,702	68.8%	55.6%	39.6%	49.6%	7,428
R only	6,120	51.2%	35.3%	13.1%	17.9%	2,575
D only	23,667	62.7%	48.0%	25.1%	34.1%	9,020
R&D mix	24,154	55.8%	38.7%	13.8%	21.3%	10,412
All	69,643	60.7%	45.4%	23.4%	32.1%	29,435
Includes 1987-1994 Cohorts				Includes only 1987-1990 Cohorts		

Cost Impact

- Remedial and developmental education represents a small portion of total state funding for higher education.
- For fiscal year 2001-2002, Tennessee colleges and universities received $754 million in state appropriations of which approximately 2.8%, or $21 million, was for remedial and developmental.
- A breakdown by sector reveals that R&D costs represent less than 2% of state appropriations at the four-year sector and less than 8% at the two-year sector.
- Of the roughly $21 million devoted to R&D, $17.3 million funds developmental education and $3.6 million funds remedial education.

Cost Impact

- Based primarily on the 1994 Tennessee higher education cost study, as well as rates of tuition increases and current cost estimations, an analysis was conducted to test the impact of providing remedial and developmental funding at a rate of $120 per credit hour, rather than the current levels that average around $140 per credit hour.
- Revising the higher education funding recommendation using this new cost rate reduces the $754 million request by only $2.5 million, or 0.3%.

Conclusions

- R/D impacts vary by exposure and institutional level
- Significance of 10 year graduation window
- R/D costs represent a small portion of overall appropriation
- Political implications
- Costs/benefits analysis of investments in higher education
- Future research directions

Questions?